8   emulate a first body in a three-dimensional virtual world by changing one or more

9   attributes of a first cursor, wherein the first cursor comprises a first plurality of

10   nodes configured as a first point hierarchy;

11

12   move the first cursor within the virtual world based on the first set of data;

13

14   modify a virtual three-dimensional work piece based on the motion of the first

15   cursor within the virtual world;

16

17   update a database to reflect the changes to the virtual three-dimensional work

18   piece; and

19

20   cause the database to be rendered into one or more images from one or more

21   different viewpoints; [and]

22

23   cause the one or more images to be displayed on the one or more display devices;

24   and

25   construct virtual objects within the virtual world using a second point hierarchy

26   and a data flow network for controlling the motion of nodes of the virtual

27   objects by:

28   attaching each virtual object node hierarchically with at least one other

29   virtual object node to form the second point hierarchy, wherein each of the

30   virtual object nodes has a position and an orientation, and

31   building the data flow network as an interconnection of input units,

32   function units, and output units, wherein said input units receive data from

33   sensors and output the received data to at least one of said function units,

34   wherein each of said function units includes at least one input and at least one

35   output, each function unit generating a value for the at least one output based

36   on at least one of data received from at least one of the input units and data

37   received from an output of at least one other of said function units, and